

Public invited to comment on Dunn Field Proposed Plan

The public will have the opportunity to review and comment on the Dunn Field Proposed Plan during a 30-day public comment period scheduled to begin in the spring of 2003.

The Proposed Plan provides information on all cleanup alternatives evaluated for soil and groundwater at Dunn Field. In addition, the plan will identify the cleanup actions that are preferred by the Base Realignment and Closure Cleanup Team (BCT).

The BCT includes members from the Depot, the Environmental Protection Agency (EPA), and the Tennessee Department of Environment and Conservation (TDEC). Using a set of nine criteria, the BCT evaluated each alternative presented in the Dunn Field Feasibility Study (FS). Their findings will be presented in the Dunn Field Proposed Plan (PP).

Under the law, the criteria used to evaluate cleanup alternatives for Dunn Field are:

THRESHOLD CRITERIA:

1. Overall protection of human health and the environment;
2. Compliance with applicable and relevant state and federal cleanup requirements;

These first two criteria are required by law. Cleanup actions are not acceptable unless they meet these conditions.

BALANCING CRITERIA:

3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility or volume of environmental conditions through treatment
5. Short-term effectiveness
6. Ease of implementation
7. Cost

These five criteria are called balancing criteria because they are used to weigh the benefits of each cleanup alternative to find the most appropriate balance.

MODIFYING CRITERIA:

8. State acceptance
9. Community acceptance

These final two criteria are evaluated after the Proposed Plan has been presented for public comment, prior to the Record of Decision being finalized.

The Dunn Field Proposed Plan will be available for review in the Depot's Information Repositories during the Public Comment Period. The dates for the Public Comment Period and the Public Comment Meeting will be advertised in The Commercial Appeal, Tri-State Defender and the Silver Star News.

In addition to the Public Comment Meeting, the public can submit comments by mail, phone, fax or email to:

Mr. John DeBack
Base Transition Coordinator
The Memphis Depot
2163 Airways Blvd., Bldg. 144
Memphis, TN 38114
Phone: (901) 544-0622
email: John.DeBack@dla.mil

For more information, call the Depot's Community Relations Office at (901) 544-0613.

Cleanup terms defined

A number of environmental cleanup remedies are being considered for use on Dunn Field. If you have attended RAB meetings or other public events at the Depot, some of these terms may be more familiar than others.

For your reference, here are some of the remedies that were considered in the Dunn Field Feasibility Study. These will be helpful in reviewing the preferred alternatives presented in the upcoming Proposed Plan.

Air Sparging:

Some of the compounds detected at Dunn Field are solvents known as volatile organic compounds (VOCs). When VOCs are exposed to air, they quickly vaporize. Air Sparging involves injecting air into the groundwater to speed up this process. It is similar to blowing air through a straw into a glass of water. The vapors rise to the surface where they can be captured and treated.

Enhanced Bioremediation:

Natural substances such as vegetable oil are injected into the ground to promote the rapid growth of tiny organisms that exist in the soil and groundwater. These organisms naturally digest and break down compounds such as VOCs.

Enhanced Extraction:

Enhanced Extraction involves injecting pressurized steam into the ground to speed up the vaporization process. As the steam rises through the soil, some compounds such as solvents are drawn to the surface where they can be extracted as vapor and treated.

Institutional Controls:

There are two types of controls used to ensure site conditions are protective of human health and the environment: Engineering Controls include methods such as enhanced bioremediation, air sparging, and soil excavation. Institutional Controls include land-use controls such as zoning or deed restrictions.

Institutional controls are used to prevent certain activities on a site, such as installing a groundwater well for use as drinking water. They can also be used to ensure that a long-term engineering solution remains in place (such as a groundwater pump and treat system).

Monitored Natural Attenuation (MNA):

Some compounds found in the soil and groundwater at Dunn Field will break down naturally over time. This process is called natural attenuation. Studies have shown that, under certain conditions, natural attenuation can work as fast or faster than an active removal option. Monitored Natural Attenuation as a cleanup remedy involves monitoring the progress of natural attenuation to ensure that the environmental conditions are improving with time.

Permeable Reactive Barrier (PRB):

A wall, or barrier, is placed underground in an area where groundwater contains substances such as volatile organic compounds (VOCs). The wall allows water to flow through it (permeable), and contains a natural compound or biological organism that reacts with chemicals present in the groundwater by breaking them down into safe, natural compounds.

Soil Vapor Extraction (SVE):

This is one of the most frequently used treatment methods to remove solvents that evaporate when exposed to air. Using SVE, air is pulled through the soil, which speeds up the natural vaporization process. An extraction system then collects the vapor and passes it through a series of filters to safely remove the solvents.

SVE was pilot tested on Dunn Field in the fall and winter of 2002.

Zero-Valent Iron (ZVI) Injection:

This cleanup method involves injecting natural iron particles, known as zero-valent iron, into the groundwater. When the iron particles come in contact with certain chemicals present in the groundwater, there is a reaction that breaks the chemicals down into safe natural compounds. □